

What's New with System z Monitoring with OMEGAMON

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An Agenda

- OMEGAMON family – Visibility, Control, Automation
- Application Performance Monitoring
- Changing how we Develop and Deliver Software
- Simplified Architecture – Reduce Time, Effort, Cost
- Demonstration – enhanced 3270 user interface (Mike Goodman)

OMEGAMON product family has been helping customers monitor System z for 20 years

7 branded products focused on monitoring and availability management across z systems

Available Now!!!

- *OMEGAMON XE on z/OS v5.1*
 - *OMEGAMON XE for CICS on z/OS v5.1*
 - *OMEGAMON XE for DB2 PE v5.1.1*
 - *OMEGAMON XE Suite v5.1*
 - *OMEGAMON XE for Storage on z/OS v 5.1*
 - *OMEGAMON XE for IMS v 5.1*
 - *OMEGAMON XE for Messaging v 7.1*
 - *OMEGAMON XE for Mainframe Networks v5.1*
- Used with **IBM Tivoli Monitoring 6.2.3 (prereq)** to provide end-to-end application performance monitoring
 - Strategically supports different IT personas with both:
 - Green screen (3270) for rapid response times for system programmers (SMEs)
 - Graphics User Interface (Tivoli Enterprise Portal) for Operations/LOB personnel
 - And providing z alert/event and threshold notifications to the Tivoli Service Management eco-systems.

Business Leaders are looking at IT to drive business agility and flexibility across their Enterprise



VISIBILITY



CONTROL



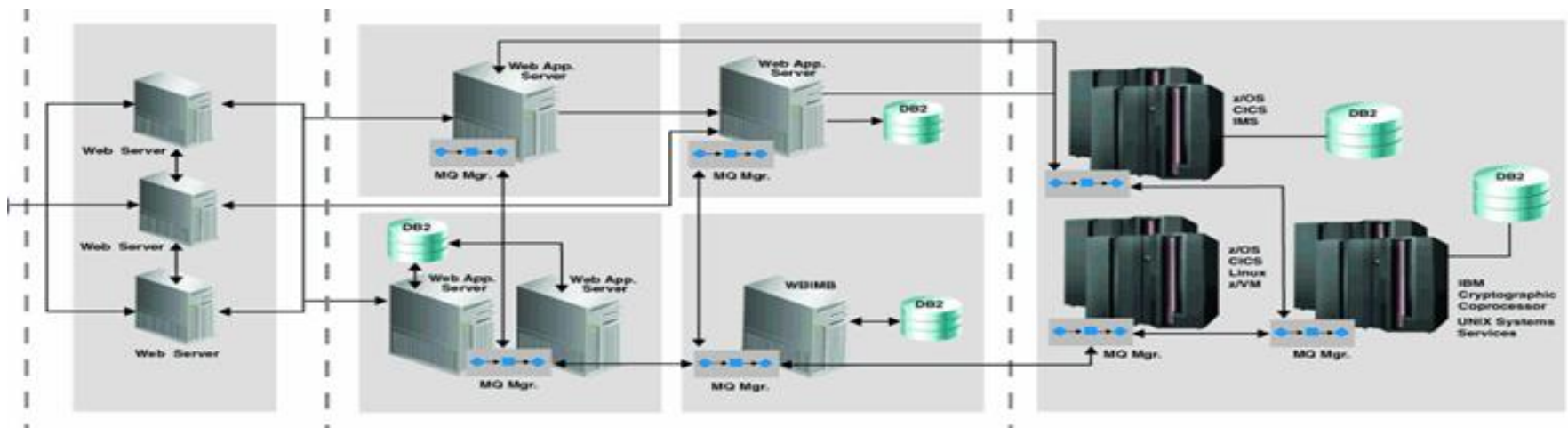
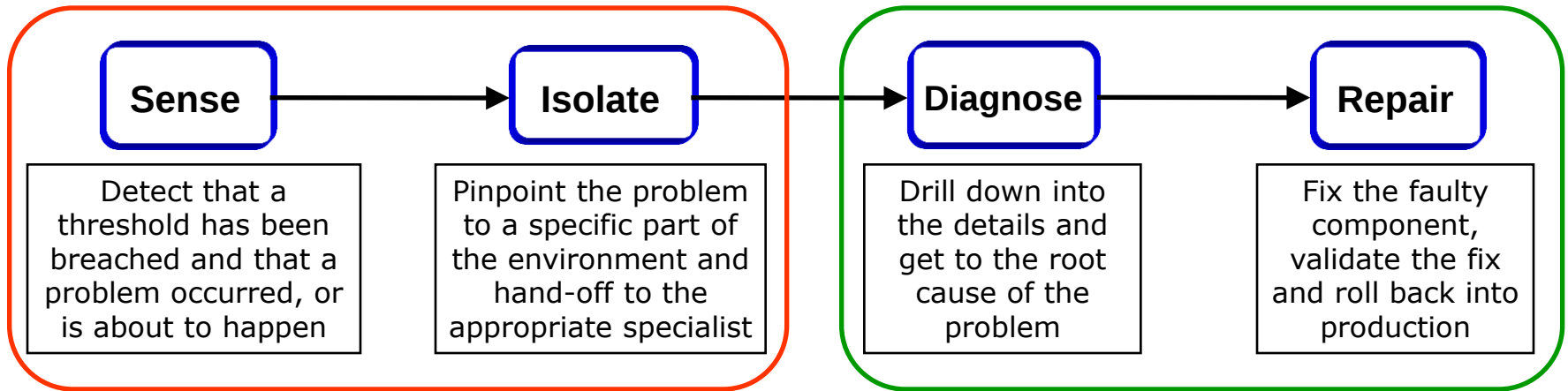
AUTOMATION

**React with
agility to
diverse IT
landscape**

**Execute with
reduced
risk & cost**

**Achieve
desired
business
outcomes**

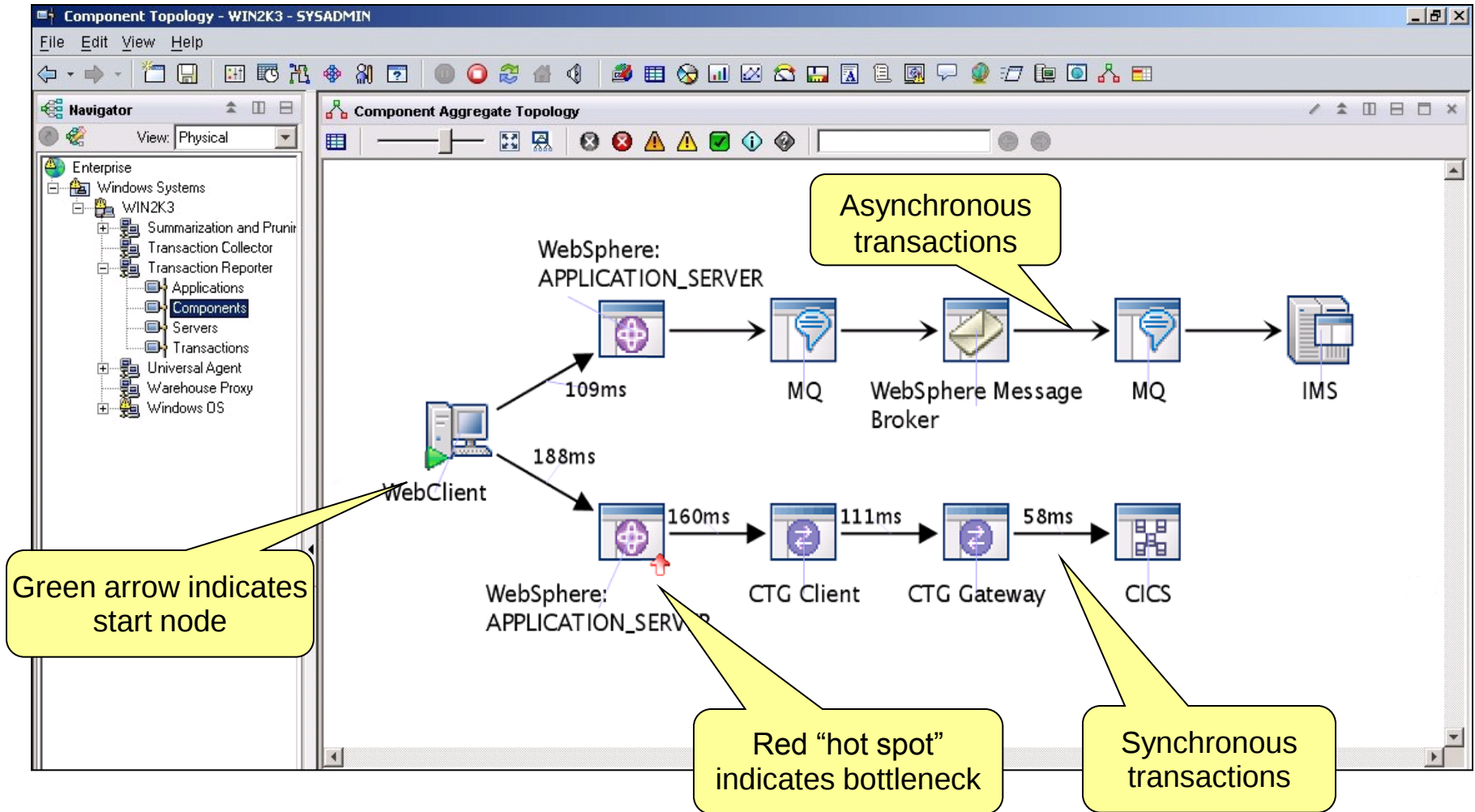
Application Performance Management Workflow - ITCAM for Transactions and OMEGAMON

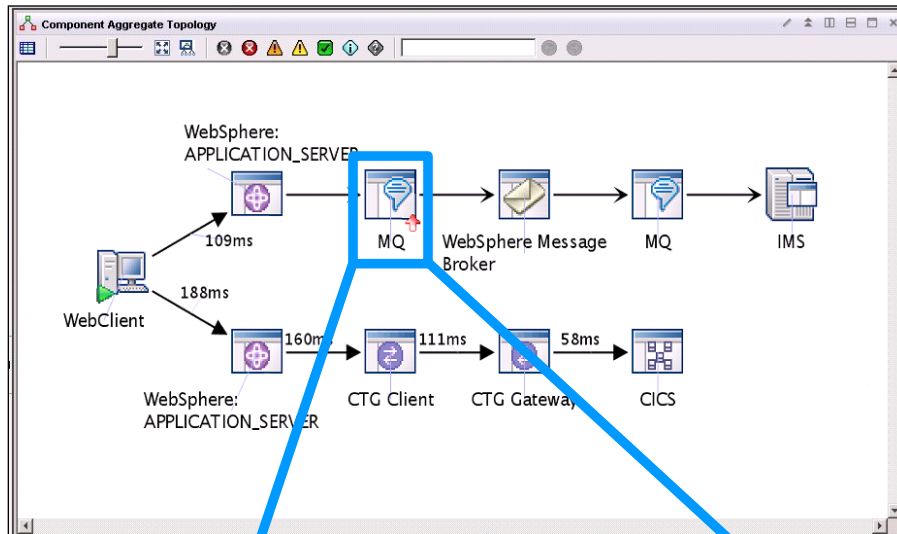


← ITCAM for Transactions for the vertical end to end →

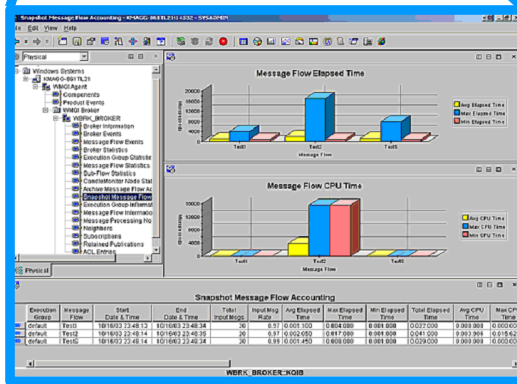
OMEGAMON for horizontal deep dive in context ↕

Transaction Tracking Topology





ITCAM for Transactions

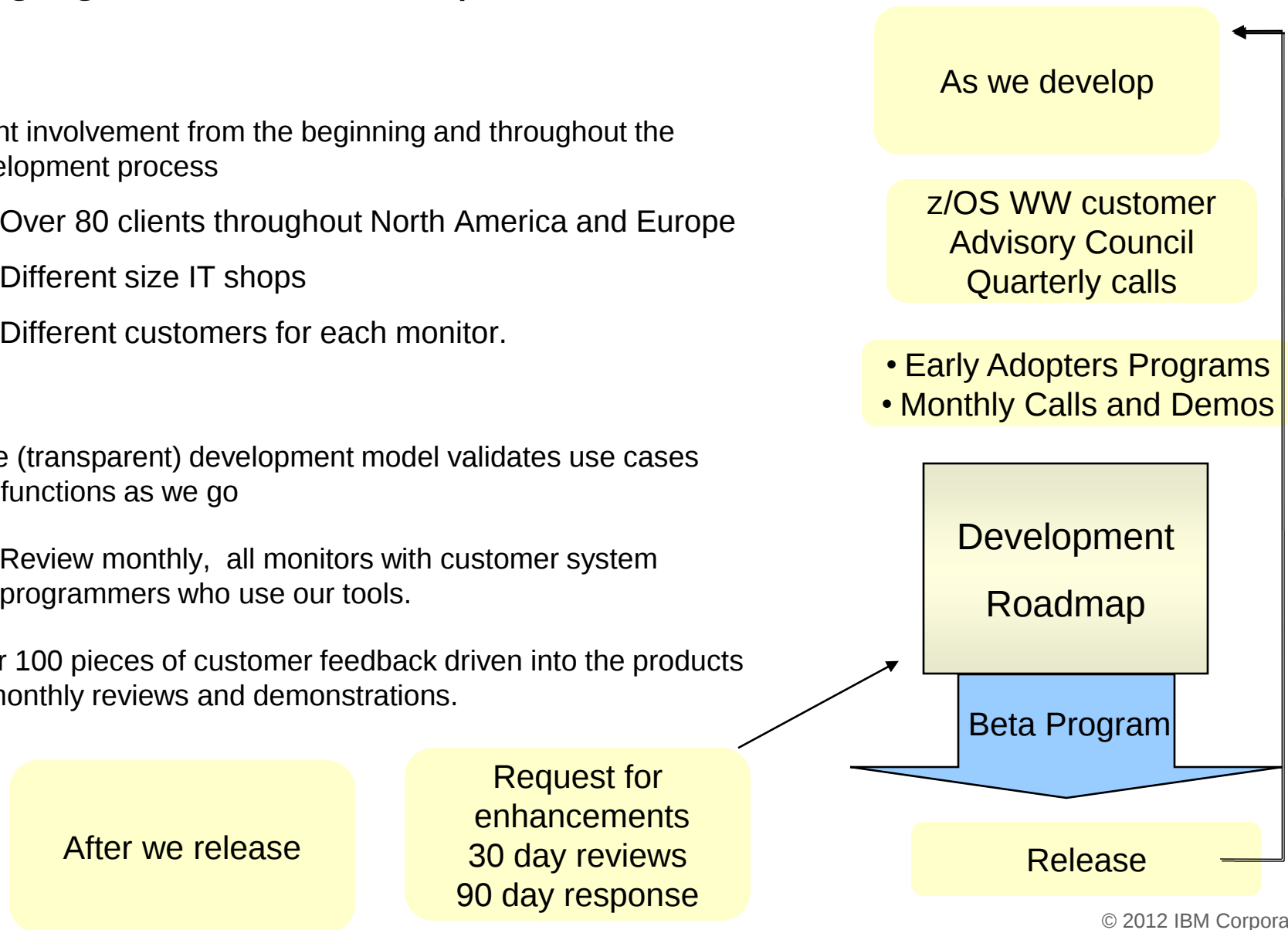


OMEGAMON XE for Messaging

- Uses Dynamic Workspace Links to launch in context into appropriate SME tool.
- Launch destinations depend on type on data source. E.g:
 - MQ -> OMEGAMON XE for MSG
 - WAS -> ITCAM for WAS
 - CICS -> OMEGAMON for CICS
 - IMS -> OMEGAMON for IMS
- Where appropriate, will drill down to specific workspace (ie. In MQ, Queue Manager drilldown links to the Queue Manager Status Workspace for the specific Queue Manager).

Changing How we Develop and Deliver Software

- Client involvement from the beginning and throughout the development process
 - Over 80 clients throughout North America and Europe
 - Different size IT shops
 - Different customers for each monitor.
- Agile (transparent) development model validates use cases and functions as we go
 - Review monthly, all monitors with customer system programmers who use our tools.
- Over 100 pieces of customer feedback driven into the products by monthly reviews and demonstrations.



OMEGAMON customer-directed design focused on helping decrease costs and improve usage

Redesigned OMEGAMON Enhanced 3270 User Interface addresses customer requirement to make problem analysis more efficient and effective

System Programmer Driven Focus Areas for Improvement

- **Simplify** Eliminate complexity and frustration
- **Standardize** Align with existing IBM 3270 Applications
- **Integrate** Move from silo monitoring towards composite views
- **Minimize** Reduce footprint, install, configuration, and CPU
- **Modernize** Make the 3270 Interface 'Best of breed' – SME focused Problem Solving Scenarios
- **Customize** Personalize User Interface



OMEGAMON XE - System Programmer scenarios for faster problem determination and availability management

Customer Driven Development : Subject Matter Experts who use our tools, designing how they want us to provide information to solve today's problems.

As a SME for zOS performance I need a single view sysplex highest consumers of key performance metrics to include at least CPU, I/O, Storage, EXCPT(ENQ), at an enterprise wide sysplex level in a single 3270 screen

As a systems administrator, I need the OMEGAMON on z/OS agents to drive component install in all framework parts so that I can reduce my FTE (full time employment) requirements.

As a SME, I want to have my most useful 25 z/OS performance and availability problem solving scenarios available to use as is and modify as part of the 3270 presentation services so that I can reduce the number of steps in my diagnosis

As a SME for zOS performance I need a single view common storage depletion across an enterprise wide sysplex view in a single 3270 screen which shows me the Enq delay and what resources are affecting it..

As a system programmer I need to see the data from a single plex when linking to a sysplex workspace in a multiplex environment to be able to drill down for problem analysis.

As a systems programmer I would like to see the health checker part of the ZMC be merged into the OMEGAMON on z/OS product which will allow me to maintain one product

Requirements gathered with and prioritized by customer system programmers

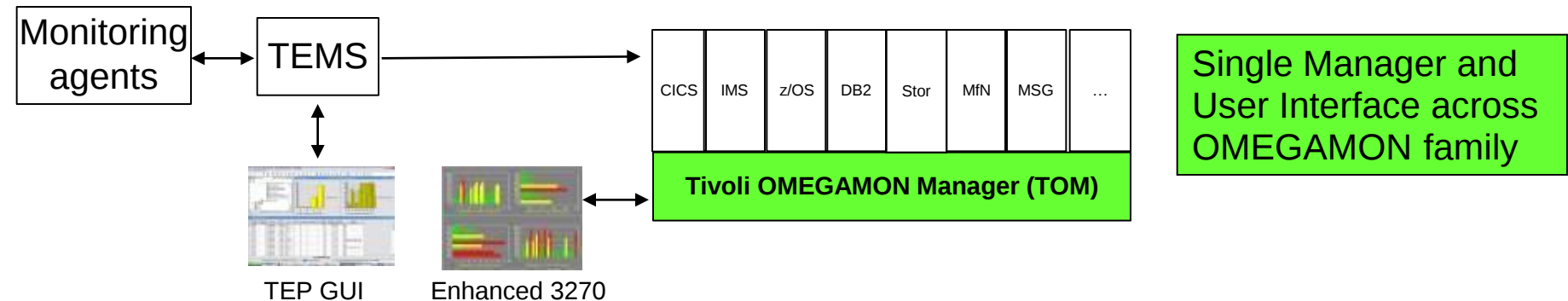
Simplifying the Architecture

Decreasing Maintenance Overhead

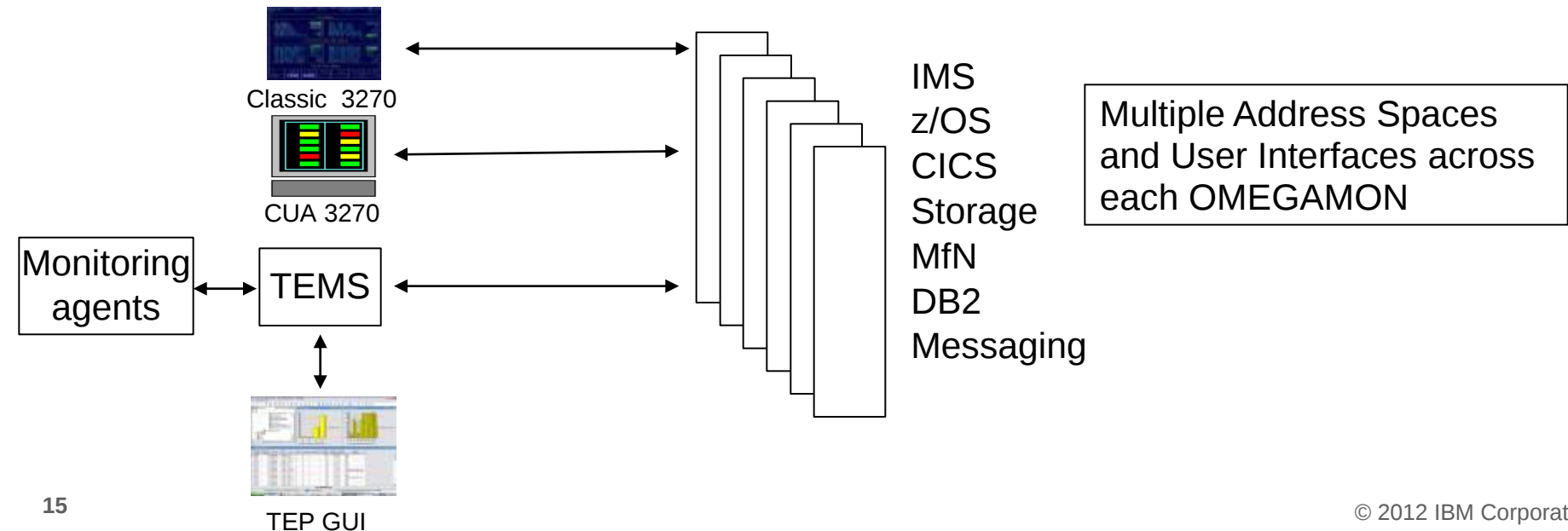
Improving Time to Value

Moving to simplified architecture driving decreased resource utilization without lose of current function

V 5.1 Enhanced OMEGAMON Architecture (“New approach”)



V 4.x OMEGAMON Architecture (“Old School Approach”)



Enhanced Configuration and Maintenance capability with ITM 6.2.3 Self-Describing Agents - *reduce FTE*

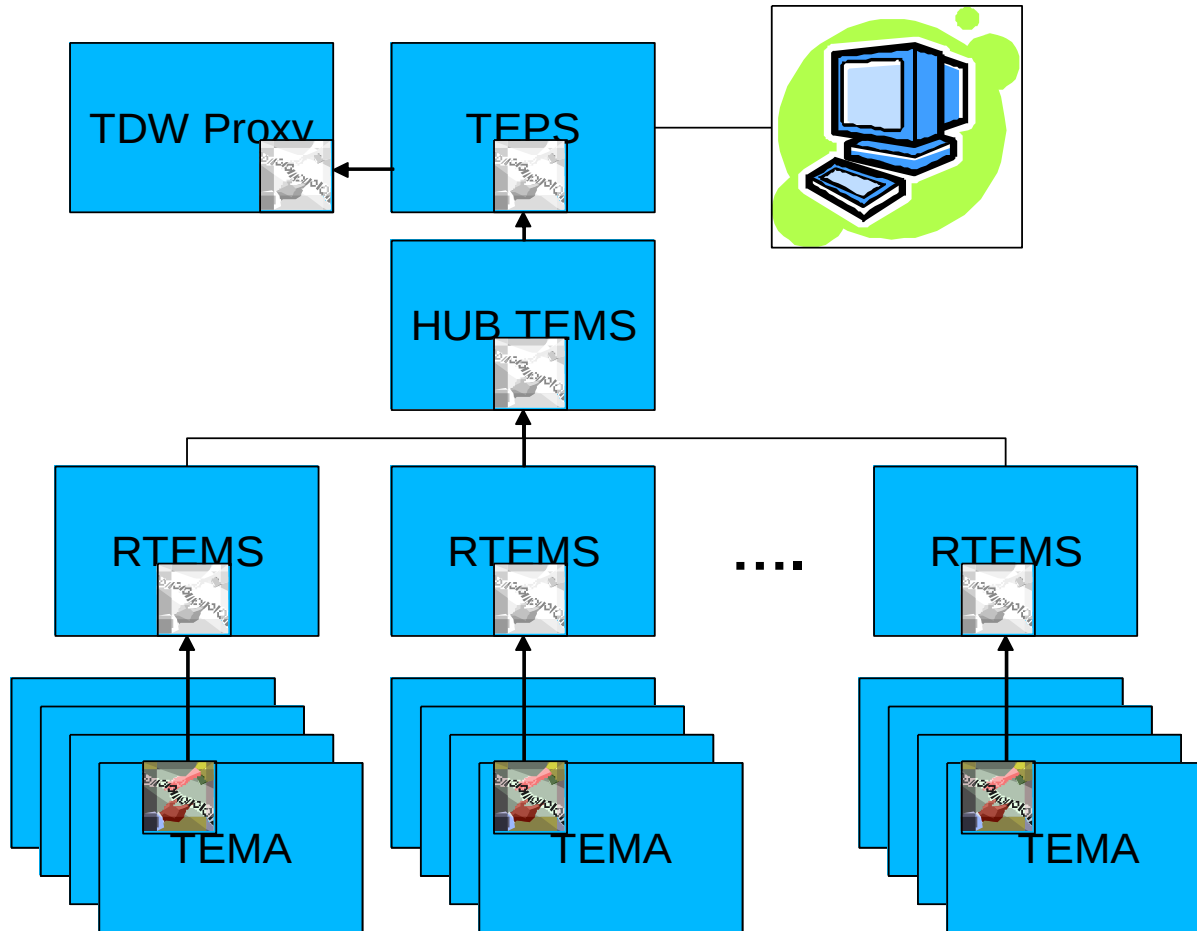
Faster, easier, less error-prone for improved reliability and productivity

- Eliminate monitoring outages caused by ITM Server recycles
 - Product upgrades/maintenance requires agent or RTEMS recycles only
- Eliminate maintenance upgrade errors:
 - Applies to new installs, staged upgrades, and maintenance
 - Crosschecks and validates version with installed data and framework
 - Avoids inconsistent application data in ITM framework layers
- Self-describing framework extensible to new capabilities
- Eliminates application data DVDs and CDs:
 - No extra distributed installs or upgrades for mainframe-centric customers



- 80% improvement in FTE requirements
- 60% improvement in time for installation and maintenance
- 30% improvement in time to configure post installation

How Self-Describing Agents works (ITM 6.2.3)

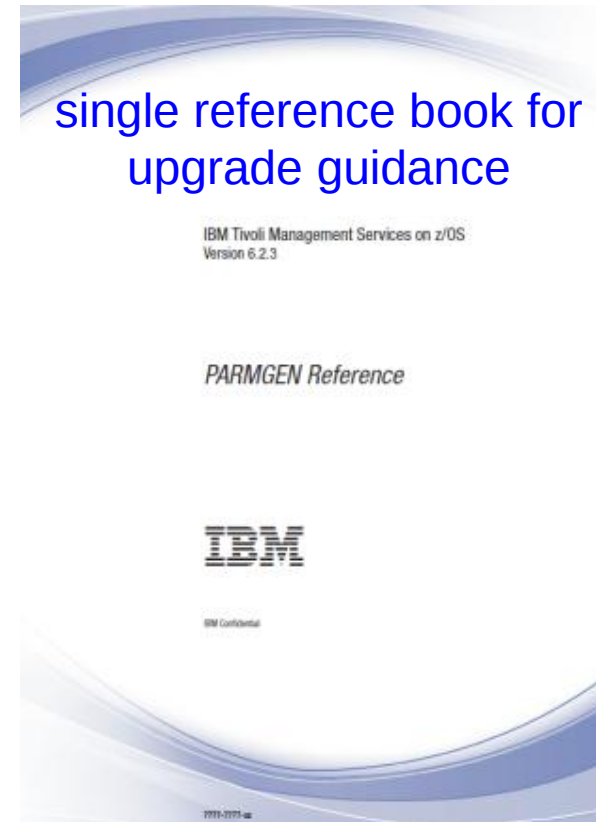


80% improvement in FTE

- Application data files includes CAT/ATRs, TEP workspaces, queries, history collection, help, UI extensions (jar files)
- Application data files imbedded in monitoring agents and propagated to ITM servers
- Propagation executed only when a higher version is detected
- New application files, upgrades & updates installed without recycling servers
- PTFs deliver application data files with updated agent (always in sync)
- **Eliminates install of mainframe application data files on distributed ITM servers**

Simplify Customer Driven improvements with Installation and Configuration enhancements for Parmgen - *improve TTV*

- Removal of ICAT as the primary way to Install and Configure 1
 - **BEFORE** -145 ICAT **product-centric** jobs to configure 38 components for 1 LPAR RTE
 - **NOW** - 8-10 Parmgen **function-centric** jobs to configure components for 1 LPAR RTE
 - Customers experiencing over 35% improvement in install and configuration time.
- Install without need of a distributed server
- Walks you through steps to complete configuration and customize a profile
- Automatically updates hundreds of configuration artifacts according to profile, including Auto-discovery of system values



"I like using the Parmgen approach better than CICAT/ICAT. I find it much easier to make things repeatable..."

I like the fact that Parmgen does not overwrite my running members"

Typical quotes from early adopters program

Reducing customer costs

The Truth about cutting costs with zIIPs

- BMC claims MainView zIIP enabled for their MainView product line
 - *but limited only to z/OS and DB2 monitoring*
- Computer Associates makes broad savings claims for SYSVIEW
 - *What they don't say is this is their first release using zIIPs and estimated savings are based on their previous un-optimized solutions*
- Other vendors sometimes hide consumption in system address spaces, often claiming “apples-to-oranges” comparative advantages

The Facts:

- OMEGAMON has been exploiting zIIP offload for years.
- OMEGAMON offloads processing for OMEGAMON z/OS, DB2, and CICS.
- OMEGAMON uses RMF as a data collector further reducing usage.
- With version 5.1, OMEGAMON improved performance and reduced CPU usage in each monitor with improvement from 20%-50%
- If you think your CPU utilization is too high, request an OMEGAMON Health Check. We'd be happy to help tune your system.



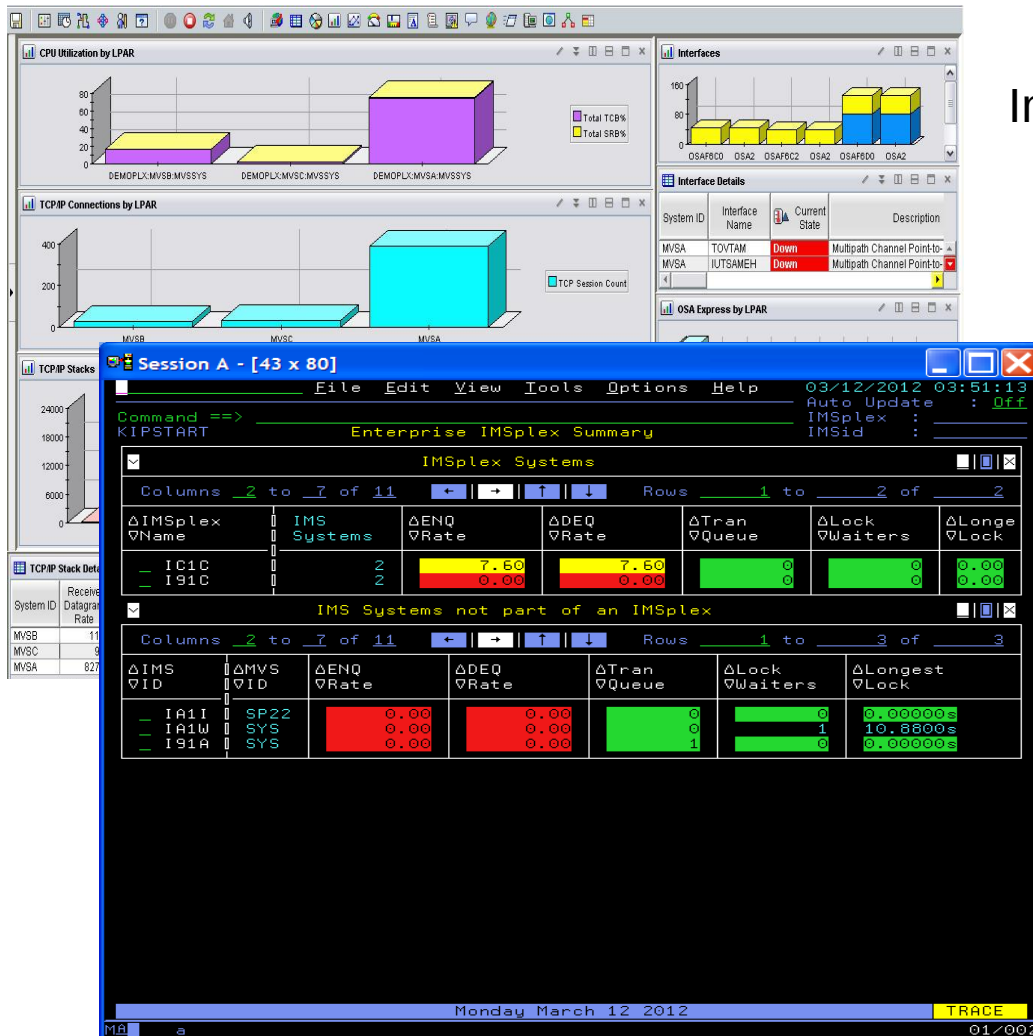
System z Management - Join Now !

developerworks

<https://www.ibm.com/developerworks/mydeveloperworks/groups/service/html/communityview?communityUuid=5e65990a-9690-42e2-93b1-c2267be7620c>

Enhanced 3270 user interface

OMEGAMON V5.1 Family products



Improving the Subject Matter experts view using the enhanced 3270ui
And still supporting
End to end views
with the Tivoli Enterprise Portal

Different UIs to support
the different IT
Personas.

Providing the same visibility
(same view of the problem)
to multiple IT folks
while looking at different UIs

Business Agility with improved IT visibility now available with OMEGAMON V5.1 family

Modernized and strengthened OMEGAMON product line for reduced resource usage and faster problem resolution

Increased System Availability with faster problem resolution

- Enhanced 3270 User Interface for SMEs
- Built-in Problem Solving Scenarios

Improved Productivity with simplified information

- Faster Install/Configuration/Maintenance
- zEnterprise monitoring across EC12, 114 and zBX

Reduced Costs with decreased resource usage

- Usage of zIIP specialty servers
- Simplified OMEGAMON architecture



Individual products include additional capability

ISPF like but not ISPF same look, touch, feel for all monitors

Up / Down
Left / Right
Scroll Controls

Toolbar

NAV1 / NAV2
Fields

Auto Update
On/Off

Panel ID

Subpanel
Collapse /
Expand
Control

Column
Sort
Control /
Indicator

File Edit View Tools Options Help 01/26/2012 13:56:42
Auto Update : Off
Plex ID :
Sys ID :
Command ==> KOBSTART
Enterprise Summary
All Active CICSplexes
Columns 2 to 6 of 19 Rows 1 to 2 of 2

ΔCICSplex ▽Name	ΔNumber of ▽Regions	ΔTransaction ▽Rate	ΔCPU ▽Utilization	Any SOS Regions	SOS Region
GAPPLPLX	2	0/m	0.0%	No	n/a
SYSGPLX	1	0/m	0.0%	No	n/a

Thursday January 26 2012

Navigation
Selection
Field

Fixed
Column
Indicator

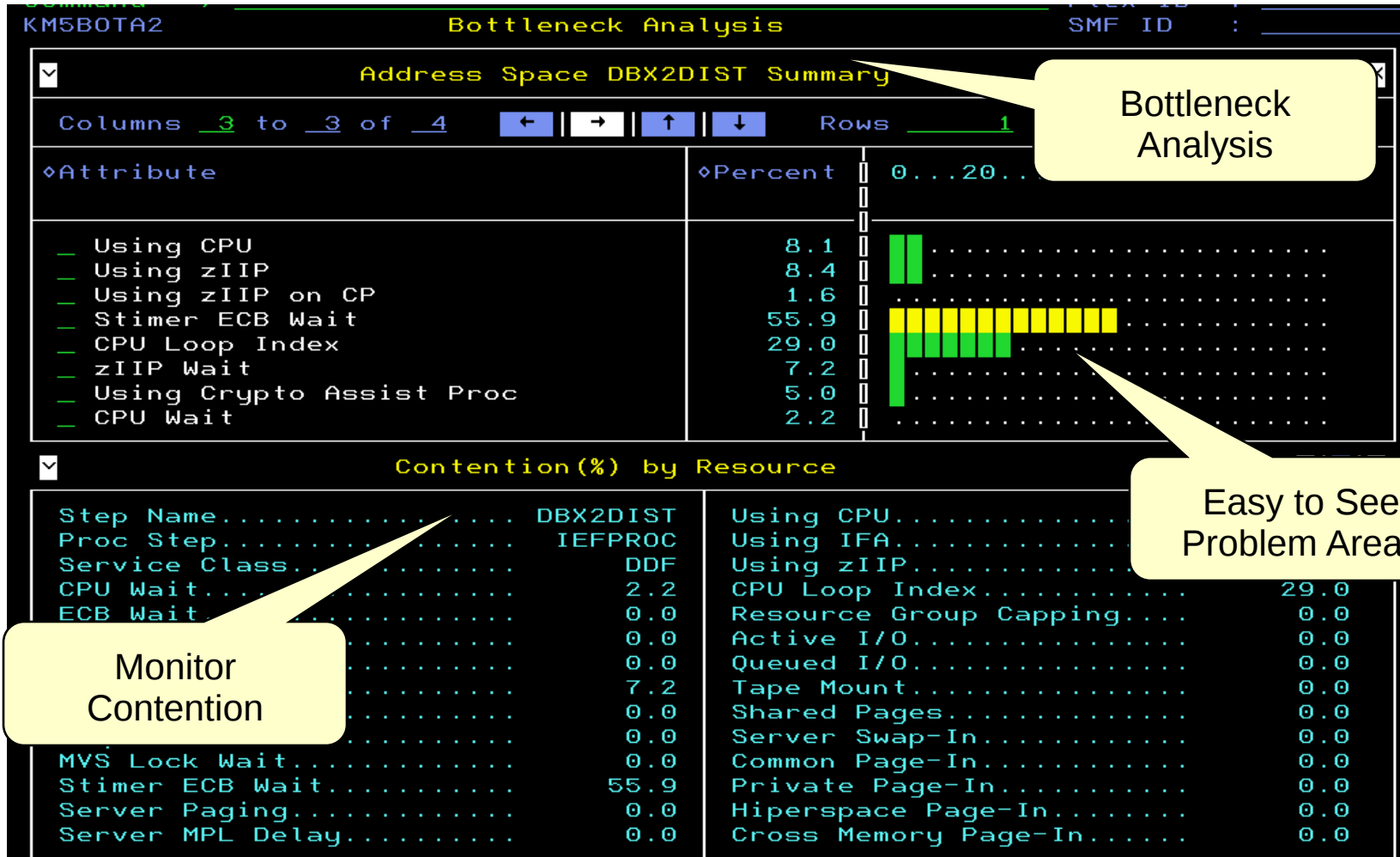
Status /
Threshold
Hilighting

Starting
Row
Selection

Subpanel Close
Control

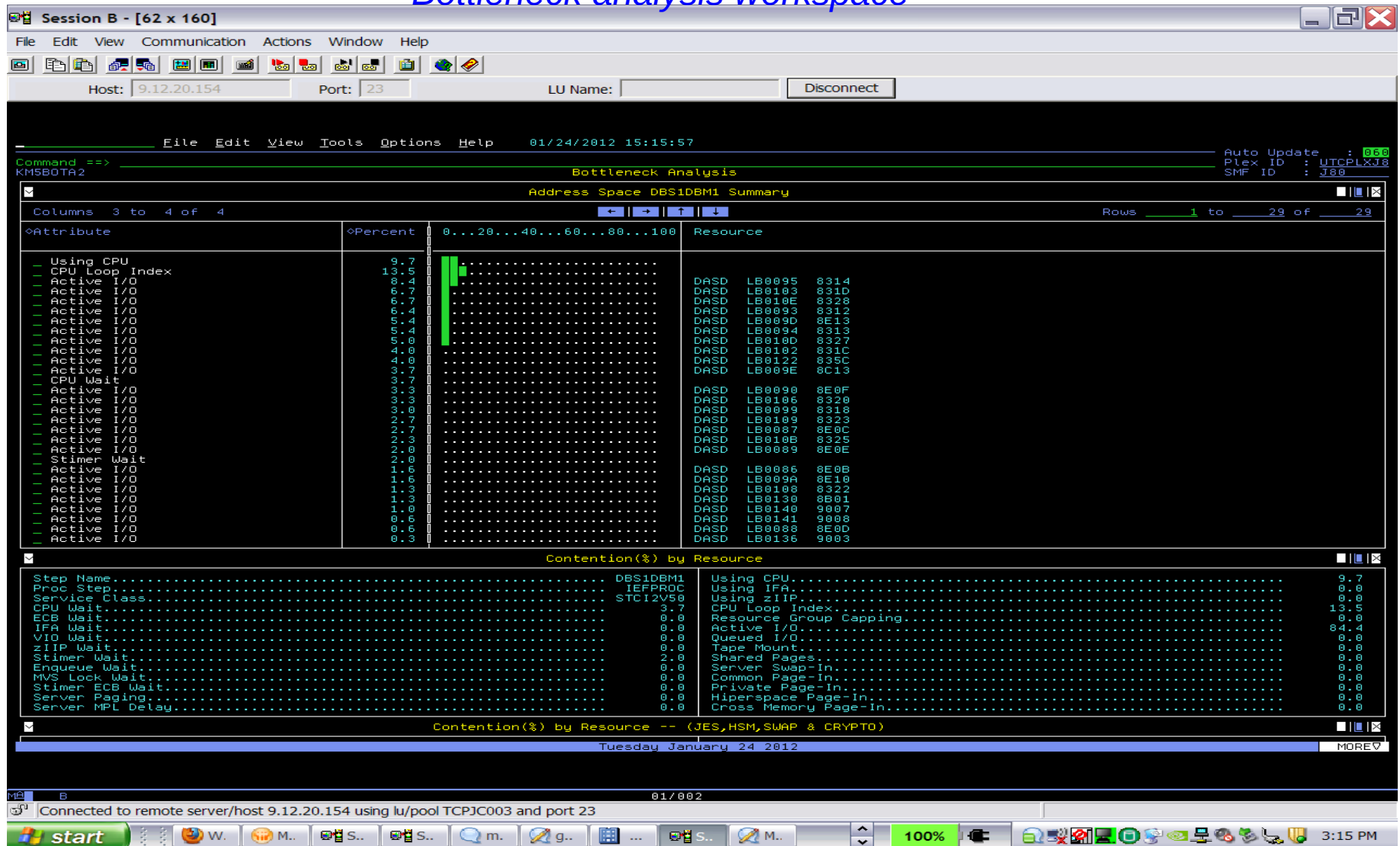
Emulators with APL can be various display sizes

Bottleneck analysis workspace



Same workspace – different Emulators

Bottleneck analysis workspace



e3270 Demo

Backup

OMEGAMON for z/OS provides SMEs with faster problem determination and availability management

Providing what Customers required in the modernized OMEGAMON

- **Simplify monitoring** with ability to view enterprise summary of multiple sysplexes and subsystems
 - Save 50 to 75% of time needed to find problems
- View **Enterprise Summary** of multiple sysplexes
- **Direct navigation** to other OMEGAMON v5.1 monitors
- New CEC and CPU **top consumers views**; **MSU 4 hour avg**
- **End-to-end monitoring** from sysplex to lpar to address space
- **Leverages a specialty processor (zIIP)** for DASD monitoring
- Includes **USS performance and availability** as well as **Healthcheck** Visibility metrics -
- Statement of Direction with zAware Visibility



OMEGAMON for CICS reduces resource usage and speeds finding and fixing hung users

In addition to the OMEGAMON V5.1 family capability:

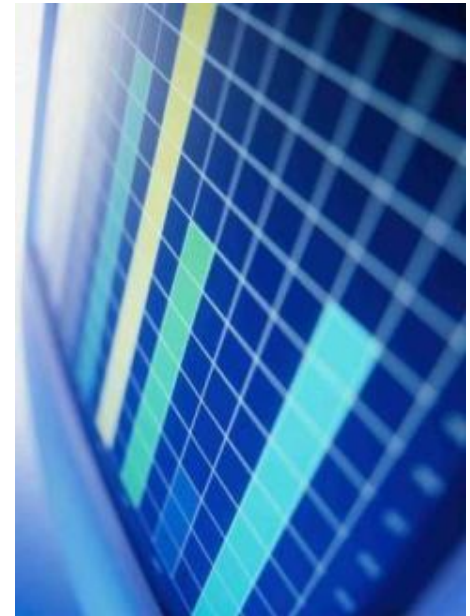
- **Decrease resource usage** by taking advantage of zIIP specialty processor
 - A customer reported 73% of CICS SLA processing off-loaded using this capability
- **Improve availability** with new 'Find' command to easily locate supported resources, such as users, over the entire CICSplex
- Reduce problem analysis times from 90 minutes to 2 minutes
- **Manage using service level analysis** of transactions based on response times with new enhanced 3270 UI
- **Integration of metrics** to CICS Performance Analyzer for reporting
- **Navigation from CICSplex to region** to resource for faster problem identification and resolution



Gain new insight into DB application performance with OMEGAMON for DB2 Performance Expert and Monitor

In addition to the OMEGAMON V5.1 family capability:

- **Visibility into IBM DB2 Analytics Accelerator (IDAA)** delivering query results for 'Train of Thought' analysis
 - Maximize your organization's ROI from appliances
- **Quickly and concisely identify** primary contributor to poor distributed application response time with *Extended Insight*
 - Single web-UI display with response time metrics
 - Reduce time chasing down problems that turn out to not be DB2
- **Unlock performance of DB2 Stored Procedures** with new displays
 - Improve performance for multiple applications simultaneously with increased visibility
- **zIIP Enablement of Near Term History** for reduced MIPS



OMEGAMON for IMS improves operator productivity and performance

In addition to the OMEGAMON V5.1 family capability:

- **View Health Summary** of IMSplex and individual IMS regions
- **New issue IMS Commands capability** from e3270ui.
- **MIPS reduction** with Application Trace Facility replacing near term history.
- **Easy navigation** from IMSplex to Region to Resource
- **Degradation Exception analysis**
 - Bottleneck analytics - views of workloads

80% improvement in time for installation and maintenance



OMEGAMON for Storage - Cornerstone of z/OS Storage Management reducing cost and increasing effectiveness

In addition to the OMEGAMON V5.1 family capability:

- **Increased automation** and reduce cost with Toolkit Take-Action
- **Greater hardware support** with expanded physical hardware monitoring (HDS and STK, IBM and EMC already available)
- **Increase problem management** from Monitor HSM Common Recall Queues
- Additional **analytic capability** from increased historical reporting options
- Ease of use and **increased flexibility** in additional reporting options (GB, MB, TRKS, CYL, etc.)
- **Speed problem resolution** and ease of use based on TEP Work space restructuring



OMEGAMON for Messaging provides ability to view entire MQ environment and quickly take action

In addition to the OMEGAMON V5.1 family capability:

- **New views** of health of Queues, Queue Managers and Channel Managers.
- **Enhanced support** for Websphere MQ v 7.1 and Websphere Message Broker v 8.1
- **Increased visibility** outside the z platform for common Websphere MQ metrics.
- **Find command** to easily locate Websphere MQ resources



Consistent look, touch and feel across all OMEGAMON monitors

OMEGAMON for Mainframe Networks improves network diagnostics and management

In addition to the OMEGAMON V5.1 family capability:

- **Improved Diagnostics** with decreased CPU utilization
 - Exploiting new callable network management interfaces (NMIs) available with z/OS v1.12
 - OSA data collection and display to improve diagnostics, visualization, and CPU usage
- New zEnterprise support with ability to monitor both data and management LANs
- **Improved CPU control** and resource usage with ability to turn data collection on and off:
- **Greater synergy** with IBM Tivoli NetView for z/OS and IBM Tivoli OMEGAMON XE for DB2 Performance Monitor created through in-context links between products.
- **Improved Management** with Take Action commands, NSLOOKUP and TRACERTE added to existing PING and DROP commands.



Coming Soon!